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Notice of Allowability	Application No.	Applicant(s)	
	10/691,869	SIEPMANN, JAMES P.	
	Examiner	Art Unit	
	Phillip Nguyen	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.

2. ☒ The allowed claim(s) is/are 1-20.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. ____.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.

(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date ____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date ____

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other ____.

EXAMINER'S AMENDMENT

1. Examiner has left a voice mail message in the voice mail box of Vic Lin, applicant's undesigned, on 3/20/2006, concerning an informality in claim 17. The application has been amended as follows:

In the claims:

Claim 17: in line 2, delete "a" (between continuous and wave).

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance: Claims 1-20 are allowed because the prior art fail to teach or fairly suggest a method and apparatus for operating a continuous wave laser as claimed in claims 1, 9, and 17.

Regarding Ohtomo et al. (US Patent 5991325), Ohtomo discloses an apparatus and method for driving a laser light source as shown in Fig. 2 with a continuous wave laser source 100 and a input pulse from clock generation and timing unit applied to the laser source. Ohtomo teaches the input pulse being larger than the threshold current, the requirement for operating the laser, in col. 4, lines 37-45 in order to control the laser output. However, Ohtomo fails to teach applying input pulse to the laser which is characterized by a power metric at least one order of magnitude greater than the power metric defined by the combination of the characteristic input voltage amplitude and characteristic input current threshold.

Okbayashi (US Patent 6192060) also teaches in Fig. 2 about driving the continuous wave laser with a pulse current driver 2 by a pulse current controller which received feedback from the photodetector 5. However, Okbayashi does not teach applying input pulse to the laser which is characterized by a power metric at least one order of magnitude greater than the power metric defined by the combination of the characteristic input voltage amplitude and characteristic input current threshold.

Odagawa (US Patent 5987044) discloses in Fig. 5B an apparatus for driving the laser diode with a pulse current driver 13a-13d to supply pulse current to the laser. The bias current 12 is provided with the same amount of current as threshold current of the laser diode and the pulse current 13a-d provide the modulation current which exceeds the threshold current when the pulse is provided (col. 1, lines 55-65). However, the modulation current (pulse source) is only 5mA while the threshold current is 25mA. Therefore Odagawa fails to teach the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Citation of Pertinent References

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Kobayashi discloses Optical Transmitter, U.S. Patent No. 6192060

The patent to Ohtomo et al. discloses Laser Beam Emitting Apparatus and Method of Driving Laser Light Source, U.S. Patent No. 5991325

The Patent to Odagawa et al. discloses Semiconductor Light Source System Having an Optimized Setting for Driving a Laser Diode, U.S. Patent No. 5987044

Communication Information

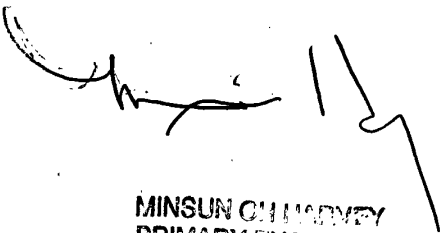
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip Nguyen whose telephone number is 571-272-1947. The examiner can normally be reached on 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MINSUN HARVEY, can be reached on 571-272-1835. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MINSUN C. HARVEY
PRIMARY EXAMINER